



## RM-325 User Station

The RM-325 is a two-channel intercom user station for the RTS-TW Intercom System. It is designed for use with a headset, and it can be placed on a desktop, or rackmounted with optional rackmount hardware.

### Features

#### Talk Features

There is a separate talk button with talk-on indicator for each channel. Talk buttons feature dual-action, momentary/latching talk operation: a button may be pressed and held to talk, then released when finished, or the button may be tapped once to turn talk on and then tapped again to turn talk off. Latching operation may be independently deactivated for each channel via an internal DIP switch. The channel 1 and 2 talk buttons may also be independently disabled via internal DIP switches. Additionally, there is an external talk switch input (for footswitch etc.) for each channel via the Aux connector.

#### Listen Features and Headsets

There is a separate listen volume control for each channel, and a listen volume control for the program input. The RM-325 accepts a stereo, dynamic-mic headset or a monaural, carbon-mic headset. Default operation is set for stereo listen, with channel 1 assigned to left headphone, channel 2 to right headphone, and program input to both headphones. Internal jumpers permit all signals to be combined for monaural listening. Internal jumpers also permit the program audio to be assigned left or right when using a stereo headset.

#### Microphone and Microphone Switch Features

The Dynamic-mic headset connector features a balanced, dynamic mic input, and a mic on/off switch input. A remote mic on/off switch may also be connected via the Aux connector. There is an internal mic-sensing circuit for the carbon-mic headset jack, which activates the mic circuit when the

carbon mic is on. An internal jumper can configure the carbon mic input exclusively for use as a mic on/off switch input (monaural headphone output is supported in either case). The microphone audio is available as an unswitched (hot, or always on) unbalanced output at the Aux connector.

#### Talk-off (Mic Kill) Signaling

The RM-325 can send and receive Talk-off signals. Talk-off send and receive can be independently enabled/disabled via internal DIP switches.

#### Call Signaling

There is a call button and indicator, and the RM-325 can send and receive call signals. There is also an internal setup switch to disable call send.

#### Program Input

Balanced program audio may be input via the 1/4-inch stereo phone jack (PGM) or via the AUX connector.

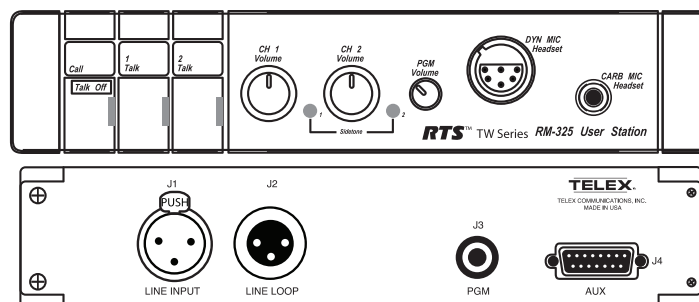
#### Line/Local Power Options

By default, the RM-325 receives operating power from intercom channel 1. Alternatively it may be configured to receive power from channel 2 or from a local, 24 VDC power source connected to the AUX connector.

#### Sidetone

There is a separate sidetone control for each intercom channel. These adjust the level of the station operator's own voice in the headphones when talking.

### Line Drawing



# RM-325 Specifications

## TW System Specifications

DC Operating Limits (station to power supply):

About 5,000 ft. (1.5 km) with #22 AWG wire

Audio Operating Limits (locally powered stations):

About 10,000 ft. (3 km) with low-capacitance cabling

System Capacitance:

0.3 mF, maximum (10,000 ft. [3 km] cable at 30 pF/ft.)

Intercom Channels:

Station Output Level: 0.7 Vrms (0 dBu) nominal

Channel Terminating Impedance: 200W  $\pm$ 5%

Station Bridging Impedance: greater than 10,000W

Current Source:

Transfer Ratio: 3.3 mA/V = 3.3 milliseconds

Output:  $\pm$ 5 mA into 200W,  $\pm$ 1 Vpeak (limiter threshold)

Call Signalling:

Send: 20 kHz  $\pm$ 100 Hz, 0.3 Vrms nominal

Receive: 20 kHz  $\pm$ 200 Hz, 100 mVrms

Talk- Off Signalling:

Send: 24 kHz  $\pm$ 100 Hz, 0.3 Vrms nominal

Receive: 24 kHz  $\pm$ 200 Hz, 100 mVrms

## RM-325 General Specifications

Power Requirements, Channel Powered RM-325:

30 VDC nominal (standard TW line), 45 to 75 mA

Power Requirements, Locally Powered RM-325:

24 VDC nominal, 45 to 75 mA

Environmental Requirements:

Storage: -40°C to 125°C; 0% to 95% humidity, non-condensing

Operating: 0°C to 50°C; 0% to 95% humidity, non-condensing

Dimensions:

1.72" (44 mm) high, 8.2" (208 mm) wide, 8" (203 mm) deep

Weight:

2 lbs 12 oz (1.23 kg)

Noise Contribution:

Less than -75 dB on the line

Common Mode Rejection Ratio:

Greater than 40 dB from the line

Program Input:

Maximum Input Level: 20 dBu

Nominal Input Level: -10 to +8 dBu

Frequency Response: 100 Hz to 12 kHz  $\pm$ 3 dB

Headphone Amplifier

Voltage Gain: 30  $\pm$ 3 dB from the line

Maximum Output: 150 mW into 50W

Frequency Response: 100 Hz to 8 kHz  $\pm$ 3 dB nominal

Output Voltage Level: 8 volts peak-to-peak

Headphone Impedance: 50 to 600W

Sidetone:

20 dB minimum range, adjustable

Microphone Preamplifier:

Maximum Voltage Gain: 54 dB

Frequency Response: 100 Hz to 8 kHz, nominal

Input Impedance: 1,000W, balanced

Limiter Range: 30 dB

Total Harmonic Distortion:

Less than 0.2% nominal at Channel output

## RM-325 Connectors

Auxiliary Connector

Type: DB-15F

Pin 1: Program input low

Pin 2: Program input high

Pin 3: Unswitched mic output high

Pin 4: Foot switch in, channel 1

Pin 5: Foot switch in, channel 2

Pin 6: Local power (+24 VDC)

Pin 7: Remote mic switch in

Pin 8: Not Used

Pin 9: Common

Pin 10: Common

Pin 11: Common

Pin 12: Foot switch channel 1 common

Pin 13: Foot switch channel 2 common

Pin 14: Local power common

Pin 15: Remote mic switch common

CARB MIC Headset Connector

Type: ¼", 3-Conductor Phone Jack

Tip: Microphone input high (or mic switch contact

Ring: Headphone high

Sleeve: Common

DYN-MIC Headset Connector

Type: XLR-6F 6-Pin Female Audio Connector

Pin 1: Headset dynamic microphone low

Pin 2: Headset dynamic microphone high

Pin 3: Headphone and mic switch common

Pin 4: Headphone left high

Pin 5: Headphone right high

Pin 6: Remote microphone switch contact

Intercom Line Input Connector

Type: XLR-3F 3-Pin Female Audio Connector

Pin 1: Common

Pin 2: Intercom channel 1 audio and power

Pin 3: Intercom channel 2 audio

Intercom Line Loop Connector

Type: XLR-3M 3-Pin Male Audio Connector

Pin 1: Common

Pin 2: Intercom channel 1 audio and power

Pin 3: Intercom channel 2 audio

Program Input Connector

Type: ¼", 3-Conductor Phone Jack

Tip: Program input high

Ring: Program input low

Sleeve: Common

## Contact Information

Telex Communications, Inc.  
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Form Number: RTS-20352-1

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## Ordering Information

**RM-325 A5F** • 2 channel binaural (stereo) programmable modular user station • Catalog Number: 90007491000

**RM-325 A4F** • 2 channel binaural (stereo) programmable modular user station with A4M headset connector • Catalog Number: 90007491001

This specifications information is preliminary and is subject to change without notification.

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